

#### **DEPARTMENT OF THE ARMY**

HEADQUARTERS, EIGHTH UNITED STATES ARMY
UNIT #15236
APO AP 96205-5236

S: 1 Oct 2006

11 Sep 2006

#### MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Eighth United States Army 2006-2007 Winter Accident Prevention Plan

#### 1. References

- a. Memorandum, HQ, United States Forces, Korea, FKSF, 12 August 2006, subject: USFK 2006 2007 Winter Safety Campaign.
- b. Memorandum, HQ, Eighth United States Army, EASF, 13 January 2006, subject: Eighth United States Army Safety Campaign (Zero Fatalities –R U Committed).

#### 2. Purpose

This memorandum formally establishes the Eighth United States Army (Eighth Army) Winter Safety Accident Prevention Plan.

- a. The purpose of this plan is to -
- (1) Provide implementation instructions and define goals and methods I expect this command to use to establish and maintain an effective winter safety program.
- (2) Achieve our goal of reducing accidents by 33% and Zero Fatalities which supports the USFK command-wide goal of no loss of life and minimizing injures and equipment damage during the winter season and the Army's goal of reducing accident rates by 75% by FY08.
- b. Last year Eighth Army experienced five cold-related injuries. Our goal is no accidents or serious injuries, no cold weather related injuries, and no loss of life as our units move into the winter months. We must take appropriate actions to lessen the risks associated with cold weather to ensure that safe operational policies are in place and strictly enforced throughout our formations. My intent is to establish/sustain a command climate that encourages safe behavior and performance on and off duty by all personnel. To fully implement this plan, commanders will ensure its integration into their Eighth Army Safety Campaign supporting operational plans.

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#### 3. Winter Safety Programs

Leaders are responsible for educating and protecting our Soldiers from winter season injuries. By 1 October 2006, MSC commanders will develop and execute a winter safety program. As you develop your winter safety programs, emphasis should be placed on the prevention of cold weather and winter seasonal related accidents involving field training, physical training, vehicle operations (Government and Privately Owned), winter recreational activities, force protection duties, aviation operations, home safety, and the holiday season. As such, commanders will comply with the following:

**a. Accident Trend Analysis.** Review and analyze their unit's accident and injury trends by 30 October 2006. This analysis will provide insight into safety issues that lead to accidents and injuries, and it will serve as the basis for the development of accident prevention policies.

### b. Composite Risk Management (CRM).

- (1) Composite Risk management must be integrated into every aspect of unit activities. Leaders, specifically first line supervisors, must make every effort to provide and maintain a workplace free from recognized hazards. Commanders must ensure that all subordinate leaders have been properly trained in composite risk management and the integration of mitigating factors into everyday activities.
- (2) I expect leaders to develop a daily personal leader habit of inculcating composite risk management in everything they do. Apply the principles of seeing themselves and seeing the environment with respect to the task at hand. Know who is on their first deer hunt and ask what you have done to make them successful.
- **c. Safety Training and Education.** Commanders will ensure that winter safety training is scheduled and conducted and that all personnel are trained on accident prevention measures for winter seasonal activities by 30 October 2006. Training focus areas follows:
- (1) Weather: Weather is a risk-multiplier. The transition from warm, wet summers to the cold, dry winter occurs rather quickly in late October and early November. Dangerously cold and freezing temperatures are a concern during the winter months, and every region of the peninsula can be affected. Korea winters are very cold and generally last until mid March. Temperatures average below freezing during the months of December, January, and February, except for the southern coastal areas. January is the coldest month in Korea.

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- (a) Snow, Ice, and wintry road conditions: USFK Pam 385-3 outlines risks associated with destructive weather conditions. Leaders must use supporting weather elements and the 17th Operational Weather Squadron website at <a href="https://17ows.hickam.af.mil">https://17ows.hickam.af.mil</a> in conducting their mission analysis and risk assessments. Also, commanders and leaders must ensure that their Soldiers know how to obtain timely weather and road condition information.
- (b) Cold Injuries: Our Soldiers can train safely in cold-weather conditions if they are appropriately trained, clothed, have adequate shelter and protection, consume adequate food and water, and have sufficient rest. Leaders must have knowledge and understanding of problems associated with working in cold environments in order to minimize each risk factor. Everyone must know the early symptoms of cold injuries and be prepared to respond accordingly. Commanders, NCOs, and supervisors at all levels must apply the composite risk management process to cold weather operations and off duty activities. Our best protection against the effects of cold-weather during training is active leader supervision and proper risk assessment and risk mitigation.
- (2) Junior Leader Training: Conduct non-commissioned officer development programs (NCODP) and officer professional development (OPD) programs that train leaders for successful implementation and continued support of the winter safety plan. For example leaders must:
- (a) Review the basic guidelines at enclosures 1 and 2 for preventing cold injuries.
- (b) Inform our Soldiers and civilians how to protect against cold injuries, recognize cold injury symptoms, and provide first aid to cold victims.
- (c) Ensure that our composite risk management procedures take into account the techniques to mitigate the effects of cold weather on both our training and leisure activities.
- (d) Initiate a buddy system under cold conditions, and have personnel check each other for cold injuries.
- (3) Aviation: Our training and peacetime operations in demanding environments and modes of flight (NOE, NVG, formation, external loads) require continuous assessment and application of safe operational measures. Wintry weather conditions increases risks associated with both rotary and fixed wing flight as well as aviation ground operations. Routine maintenance tasks and flight preparations takes longer in

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harsh weather. Briefing officers and unit chains of command must be fully knowledgeable of their responsibilities and requirements.

- (a) Leaders must evaluate every mission and ensure that not only the weather conditions support the planned mission, but also that the risks associated with deteriorating weather are addressed. The effects of deteriorating weather or icing on mission completion and aircraft performance cannot be underestimated. Deicing of aircrafts is critical to Army readiness. Aircraft unsheltered by hangars are subject to snow, ice, and frost contamination of rotor blades, aircraft wings, and fuselages rendering them non flyable until cleaned.
- (b) Leadership is the single most important factor affecting aviation safety. Leaders must balance operational hazards with flight hazards. They must assess not only the hazards, but also mitigation actions to minimize risk to its lowest level while still maximizing mission success. Leaders must know and appropriately team their people and formations. Commanders must be fully cognizant of all situational conditions for aircraft operations of aircraft they own. We must take prudent steps to ensure that safe operational policies are in place and strictly enforced before aircraft are operated.
- (4) Vehicles: With the large number of new personnel arriving during the summer months, units must conduct driver orientation programs for Soldiers driving military or privately owned vehicles. These programs must address the hazards of operating cell phones while driving, not using seatbelts, driving while drowsy, the identification of hazards caused by winter road surfaces, determination of proper speeds and following distances for varying conditions, and interpretation of highway condition codes IAW USFK Regulation 190-1. Other topics for discussion should include motorcycle/scooter driving safety precautions, performance of vehicle preventive maintenance checks and services, provisions outlined in appropriate driver training manuals and Korea unique driving hazards.
- (a) The USFK Pam 385-2, Guide to Safe Driving in Korea, provides information on traffic rules and concerns for driving in Korea and can be accessed from <a href="http://www-hr.korea.army.mil">http://www-hr.korea.army.mil</a>. Prior to driving between 1 November 2006 and 31 March 2007, special training in winter operations will be given to all operators of Government owned vehicles. Completion of this special training requirement will be annotated on the individual's drivers training record. Instructions must provide the basic knowledge necessary to operate a vehicle safely during the winter season.
- (b) Wintry road conditions make travel extremely hazardous during the winter months. Listening to your local television and radio stations and reviewing your Area Command Website can be extremely helpful. Current weather information, road

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conditions, travel advisories, cancellation of social and business functions, and school closings/delays are available through the media.

- (5) Sports/Recreation: We don't want to prevent our Soldiers or family members from enjoying and engaging in winter sports or recreation activities, but we must remind them to prepare themselves for these activities and to take the proper safety precautions when conducting them. Discussions need to be focused on winter activities such as hiking, skiing, sledding, camping, or snowboarding. It is important to take time to recognize the risks involved whether on or off duty, on or off post.
- (6) Wellness Issues: Leaders must be aware of the signs and take the appropriate measures to prevent suicide, alcohol and substance abuse, and domestic violence/sexual assault. These areas are of great concern as newly arrived Soldiers, Civilian Employees, and Family Members get acclimated to life in Korea and are also of increased concern during extended weekend periods and during the holiday season. Leaders must remain cognizant of the risk and the need to remind everyone to support each other; this is what "battle buddies" do.
- (7) Information Distribution: Leaders must ensure that safety information and safety measures reach the Soldier, Civilian Employee, and Family Member level. In order to do this, they must publish and distribute safety campaign articles and materials and coordinate with American Forces Network and print media. Also, commanders and other leaders can use safety councils, local media, email messages, and safety alerts to distribute this important safety information.
- (8) Under the Oak Tree Counseling: Leaders at all levels will conduct "Under the Oak Tree Counseling;" it is a great way for first-line supervisors to impact the safety of our Soldiers and their families. "Under the Oak Tree Counseling" should lead to a verbal commitment between supervisors and their subordinates that both will do their part to avoid accidents.
- (9) Home Safety. Service member's safety begins in the home. Family members are also at risk for injuries. We need to reinforce safe behavior of family members. Supervisors should talk to their Service members about, rehearsing home emergency plans, holiday decorations, and performing function tests on smoke and carbon monoxide detectors.

#### 4. Requirements Summary

a. Develop a winter safety program by 1 October 2006 that concentrates on the areas outlined in paragraph 3.

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- b. Ensure that winter safety training is scheduled and conducted, and that all personnel are trained on accident prevention measures for winter activities by 30 October 2006.
  - c. Conduct an accident trend review and analysis by 30 October 2006.
- d. Conduct NCODP and OPD programs that train leaders for successful implementation and continued support of this plan.
  - e. Monitor subordinate units in their execution of this plan.
- f. Ensure that a process which penetrate our formations down to squad level is in place for relating off-duty risks for activities including hiking, skiing, sledding, camping, or snowboarding.
- j. Ensure that first-line leader risk assessment and risk mitigation assistance is available to Soldiers planning off-duty activities using "Under the Oak Tree" counseling.
- k. Area Commanders will publish winter safety articles in local area newspapers and media beginning on 1 November 2006.
- I. Emphasize moderation in alcohol consumption and the use of designated drivers and ride-home programs.
- m. Review events planned for winter recreational and training activities to ensure cold-weather risk management is applied and appropriate controls are in place.
- n. Beginning 15 October 2006 PAO will publish safety campaign information in appropriate media.
- o. Ensure military vehicle drivers receive special training in winter operations prior to driving between 1 November 2006 and 31 March 2007.
- **5**. I expect leaders to identify the risks that are inherent in our operations and implement appropriate countermeasures through detailed mission analysis that mitigates the risks our Soldiers will face. Brigade level commanders will certify that their programs are in compliance with this winter safety accident prevention plan and the above references. Provide me feedback on the status of your winter accident prevention programs on 15 September 2006 at the Eighth Army Commanders' Safety Council. We must capitalize on our collective experience to forge sound decisions and ensure we are taking every possible measure to mitigate risk. Our Soldiers, Civilian

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Employees and Family Members demand our commitment to safety and each mission ends with no loss of life. It is our duty!

- **6.** Guidance on winter safety is available at the winter section of the Eighth Army Safety website at <a href="http://safety.korea.army.mil">http://safety.korea.army.mil</a>.
- 7. Pacific Victors!

2 Encls as

DAVID F. VALCOURT Lieutenant General Commanding

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DIRECTOR, INSTALLATION MANAGEMENT AGENCY/KOREA REGIONAL OFFICE (SFIM-KO-ZA)

A comprehensive cold weather injury prevention and management program will follow the principles of composite risk management by identifying hazards, assessing the hazards in terms of severity and probability, and implementing appropriate controls to abate the hazards. Spot-checking and supervision by first-line leaders must be employed to ensure control measures are being implemented. Cold casualty prevention is a command responsibility. Cold weather injuries are PREVENTABLE.

Leaders must develop a daily personal leader habit of inculcating composite risk management in everything they do. Apply the principles of seeing themselves and seeing the environment with respect to the task at hand. Know who is on their first deer hunt and ask what you have done to make them successful." Commander Eighth United States Army, LTG Valcourt, June 2005

# Possible Outcomes of inadequate climatic cold management:

Chilblain (due to bare skin exposed to cold,	Hypothermia (whole body temperature dangerously)
humid air)	low)
Immersion Foot (Trench Foot)	<b>O</b> Dehydration
(due to wet feet)	Snow Blindness
Frostbite (freezing of tissue and body parts)	G Carbon Monoxide Poisoning

# Composite Risk Management is the Process of Identifying and Controlling Hazards to Protect the Force

Risk Management Steps

- 1. Identify Hazards How cold is it?
- 2. Assess Hazards Analyze mission requirements, Determine Uniform and Equipment, Identify High- Soldiers
- 3. Develop Control and Control Hazards Implement Cold Mitigation

- 4. Implement Controls Adopt and Implement Controls into Plans
- 5. Supervise Evaluate and Correct Controls

See Army Field Manual 5 -19 for more information.

# 1 Identifying Hazards

- Cold (temperature 40 °F and below)
- OWetness (rain, snow, ice, humidity) or wet clothes at temperatures below 60 °F
- Wind (wind speed 5 mph and higher)
- Lack of adequate shelter/clothes
- Lack of provisions/Water

### Other Risk Factors

- Previous cold injuries or other significant injuries
- o Use of tobacco/nicotine or alcohol
- Skipping meals/poor nutrition
- Low activity
- o Fatigue/sleep deprivation
- Little experience/training in cold weather operations
- Cold casualties in the previous 2-3 days

If any of the above conditions exist, the risk of a cold weather injury may be increased; follow the Composite Risk Management steps.

# 2 Assessing Hazards

The potential for cold casualties can be assessed by determining -

- a. The magnitude of cold exposure. Reliable measurement equipment must be used to determine.
  - (1) Air temperature (thermometer).
  - (2) Wind speed (anemometer).
  - (3) Wetness.
- (4) Weather forecast (local weather station or another source as the worldwide web).
  - b. The readiness of troops. Soldiers must have-
- (1) Proper gear (appropriate clothing in good condition (clean and without stains, holes or blemishes that could decrease the insulation)).
  - (2) Adequate shelter.
  - (3) Proper fitness.
  - (4) Proper food and hydration. (Have meals been consumed?)
  - c. Mission-related concerns, to include-
- (1) Degree of mobility, which impacts on Soldier heat generation.
- (2) Contact with ground or other surfaces that may increase conductive cooling. (Bare metal, fuels/POL)
  - (3) Exposure to wet conditions (for example, stream crossings).

Are there other circumstances?

- Are feet dry and warm?
- Is the Soldier with a buddy who can assist/watch over to prevent cold injures?

# 3 Developing controls

Cold causalities can be controlled through:

- a. Education
  - (1) Troop education, to include -
    - (a) Assessing cold stress.
    - (b) Recognizing and preventing cold injuries.
- (c) Limiting the effects of cold through clothing, shelter, and nutrition.
  - (d) Learning how to work effectively in cold environments.
  - (2) Leadership education, to include-
- (a) Supervising troops who often have only superficial understanding of cold.
- (b) Evaluating the impact of cold on the mission (for example, everything takes longer; troops will be more fatigued, more likely to make mistakes).
  - (3) Experiential learning, to include -
- (a) Remembering that true effectiveness in cold environments only comes with experience.
- (b) Practicing the clothing principles of layering and staying dry. These principles must be tailored to the individual, and must be practiced so that Soldiers will learn when to dress down (before sweating begins) and when to add layers (before shivering begins).
- (c) Using equipment in the cold. Everything takes longer, so practice is needed; Soldiers also need to be able to identify where special tools or clothing (for example, contact gloves) may be necessary.
- (d) Planning for longer missions (weather may change quickly and higher operations, and troop fatigue impacts even routine operations).
- (4) The posting of cold-casualty prevention information as an ongoing remember.

# Developing controls continued The standing operating procedu

(5) Establishing standing operating procedures for most routines.

# b. Training

- (1) Clothes are to be appropriate and worn properly.
- (a) Clothing must be kept dry, and wet, damp clothes changed as soon as possible.
- (b) Clothing is to be worn loose and in layers, and hands, fingers, and the head are to be covered and protected.
- (c) All clothing must be clean and in good repair (no broken zippers or holes).
- (d) Proper boots must be worn, ones that are not tight and are dry.
- (e) Socks must be clean and dry, an extra pair of socks must be carried, wet or damp socks must be changed as soon as possible, and foot powder will be used on feet and boots.
  - (f) Feet are to be washed daily if possible.
- (g) Gaiters are to be worn to keep boots dry when necessary.
  - (h) Gloves or mittens are to be worn.
- (i) Hands must be warmed under clothes before hands become numb.
- (j) Skin contact with snow, fuel, or bare metal is to avoided, and proper gloves are to be worn when handling fuel or bare metal.
- (k) Gloves are to be waterproofed by treating them with waterproofing compounds.
- (I) Face and ears are to be covered with a scarf, and an insulated cap with flaps over the ears or a balaclava is to be worn
- (m) Face and ears are to be warmed by covering them with warm hands, and the face and ears must not be rubbed.
- (n) Face camouflage will not be used when the air temperature is below 32 °F
  - (o) Sunscreen are to be worn.
  - (p) Sunglasses are to be worn to prevent snow blindness.

# Developing controls continued

- - (a) Soldiers are to keep moving.
- (b) Big muscles (arms, shoulders, trunk, and legs) are to be exercised to keep warm.
  - (3) Health and nutrition must be sustained.
- (a) Alcohol use is to be avoided (alcohol impairs the body's ability to shiver).
- (b) Tobacco products are to avoided (tobacco products decrease blood flow to the skin).
  - (c) All meals are to be eaten to maintain energy.
- (d) Water or warm nonalcoholic fluids are to be drunk to prevent dehydration.
- (e) Carbon Monoxide poisoning must be prevented by using only Army-approved heaters in sleeping areas, by not sleeping near exhaust of vehicle while the vehicle is running, and by not sleeping in an enclosed area where an open fire is burning.
  - (4) Soldiers will protect each other.
- (a) Soldiers are to watch for signs of frostbite and other cold weather injuries in their buddies.
- (b) Soldiers are to ask about and assist with rewarming of feet, hands, ears or the face.
  - (5) Leadership initiatives will be practiced.
- (a) Activities or exercise will be limited or possibly discontinued during very cold weather.
  - (b) Covered vehicles are to be used for troop transport.
  - (c) Warming tents will be available.
  - (d) Warm food and drink will be on hand.
  - (e) All equipment is to be checked and working properly.



# **Implementing Controls**

**Cold causalities controls can be implemented through:** 

- a. Identified controls already in place (buddy checks, sock changes, available shelter, and warm meals)
- b. Controls that are integrated into standing operating procedures.
- (1) Soldiers (including newly arrived Soldiers) will be educated about hazards and controls.
- (2) The buddy system will be implemented to check clothes/personal protection.
- (3) Soldiers will be encouraged and allowed to speak up about any problem (self-checks).

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c. A decision to accept risk at the appropriate level.



# 5 Supervising and Evaluating

The final step in the risk-management process is the supervision and evaluation of the controls taken to prevent cold casualties. Examples are:

- a. Ensure all soldiers and leaders are educated and experienced in the prevention, recognition and treatment of cold weather injuries as well as effective measures for working in cold environments
- b. Delegating responsibilities (inspections, buddy checks) to ensure control measures have been implemented.
- c. Monitoring the adequacy/progress of implementation of control measures
- d. Performing spot checks shelters, rewarming facilities, and food and drink supplies.

CRM Steps for preventing Cold Causalities were adapted from TB MED 508

#### Ten commandments of Preventing Cold Injury

- 1. Provide adequate clothing, shelter, heaters, warming areas, food, and warm beverages for cold-weather operations.
- 2. Ensure that only Army-approved heaters are used and personnel are trained in the use of the heaters.
- 3. Educate Soldiers about the steps needed to minimize the risk of cold injury, to include risk factors such as age, race, fitness, hydration, nutrition, rest, alcohol and drugs, and actions to avoid cold injury such as understanding environmental and personal risks, establishing observational checks, avoiding contact cooling, using clothing properly, and exercising.
- 4. Initiate a buddy system under cold conditions, and have personnel check each other for cold injuries.
- 5. Obtain regular real-time, local weather data and predictions to develop and implement controls for cold, wetness, and wind exposure.
- 6. Know who is at risk in your formation. Anybody can develop a cold-related injury. However, some soldiers are more susceptible than others. Soldiers who have had a cold injury in the past are much more likely to develop a cold injury sooner, or a more severe cold injury in the future. The typical cold weather injury casualty is a male approximately 20 years old at the rank of E-4 or below. He is usually from a warm climate and is not experienced in dealing with cold weather and not prepared to survive in those conditions. Soldiers who use alcohol, tobacco/nicotine or medication could have impaired judgment and miss early warning signs of cold injuries.
- 7. Inform Soldiers to keep dry. Wetness greatly increases the chance of cold stress. They should always have extra clothing available if there's a chance of getting wet. They must keep their feet dry; wet feet are very susceptible to frostbite.
- 8. Identify and closely monitor personnel who have previously suffered a cold-weather injury.
- 9. Ensure Soldiers winter deployment kits contain an initial supply of stock hats, sunglasses, sunscreen, lip balm, and skin-care items.
- 10. Conduct safety meetings to emphasize special cold weather procedures. Be prepared to provide medical assistance.

If you have any questions or need additional information, use the 11th Commandment below:

11. Contact your Area Preventive Medicine Department.